

What is claimed is:

1. A fluid pressure operating apparatus, comprising:

a fluid pressure cylinder for opening and/or closing a contact;

5 control valves for use of open and/or close operation, for bringing said fluid pressure cylinder into an opened-circuit operation and a closed-circuit operation; and

driving portions, each being provided in each of those control valves, wherein said driving portions and said control
10 valves are disposed in a same axis thereof.

2. A fluid pressure operating apparatus, as described in the claim 1, wherein said control valve is a poppet valve, and said driving portion is a solenoid of a type of direct movement.

3. A fluid pressure operating apparatus, as described in
15 the claim 2, wherein a plunger owned by said solenoid and a valve body owned by said poppet valve have engagement portions, and each of those engagement portions has a length, so that it is longer at said valve body side than that at said plunger side.

4. A fluid pressure operating apparatus, comprising:

20 a fluid pressure cylinder for opening and/or closing a contact;

control valves r opened-circuit and/or closed-circuit, for bringing said fluid pressure cylinder into an opened-circuit operation and a closed-circuit operation; and

25 solenoids, each being provided in each of those control valves, wherein each of said solenoid has a plunger therein, so that an operation initiating time of said control valves for use of open operation differs from that of said control valves for

use of close operation when operating to open a circuit and when operating to close a circuit.

5 5. A fluid pressure operating apparatus, as described in the claim 4, wherein a penetrating hole is formed in each of said control valves, within which said plunger is able to move, and a projection portion is formed at a tip of said plunger, thereby to engage with said control valve at said projection portion.

10 6. A fluid pressure operating apparatus, as described in the claim 5, wherein both said plungers of said solenoid for driving the control valve for use of open operation and said solenoid for driving the control valve for use of close operation are disposed on a same axis, and are neighboring with each other on a side opposing to said projection portions of said plungers.

15 7. A fluid pressure operating apparatus, as described in the claim 4, wherein a penetrating hole is formed in each of said control valves, within which said plunger is able to move, and a projection portion is formed on each of said plungers, thereby engaging said projection portions with said control valves, and further two (2) pieces of said plungers are disposed on a same axis, and a connection rod is provide for connecting between the projection portions of said both plungers.

8. A fluid pressure operating apparatus, as described in the claim 4, wherein each of said control valves is a poppet valve.

25 9. A fluid pressure operating apparatus, as described in the claim 4, wherein said control valve for use of open operation and said projection portion of the plunger engaging with said control valve for use of open operation are in contact with under a condition where said control valve for use of open operation is closed, while a gap is defined between said control valve for use of close operation and said projection portion of the plunger engaging with said control valve for use of close operation under condition where the plunger engaging with said control valve for use of open operation and said control valve for use of close

operation are in contact with.

10. A fluid pressure operating apparatus, as described in the claim 4, wherein said control valve for use of close operation and said projection portion of the plunger engaging with said
5 control valve for use of close operation are in contact with under a condition where said control valve for use of close operation is closed, while a gap is defined between said control valve for use of open operation and said projection portion of the plunger engaging with said control valve for use of open operation under
10 condition where the plunger engaging with said control valve for use of close operation and said control valve for use of close operation are in contact with.